

## LCLUC Abstract

### Time Scales of Landuse Change and Export of N and P from Coastal Plain Basins to the Coastal Zone

<<http://people.hpl.umces.edu/~klee/timescale1.html>>

Thomas R. Fisher

Changing landuse has been an important determinant of terrestrial export of N and P leading to eutrophication of the coastal zone, including estuaries such as Chesapeake Bay. I propose to link (1) our current efforts to model N and P export from two coastal plain watersheds of subestuaries of Chesapeake Bay with (2) historical landuse patterns derived from LANDSAT imagery, aerial photographs, and local landowner records. Landuse changes will be derived over the last 20 years from Landsat images, over the last 50 years from aerial photographs, and over the last 70 years from maps and plats. Changes in landuse will be used to estimate export of N and P at several time scales, and we will also use these watersheds as field verification sites for extrapolation over a larger region of the coastal zone under current conditions.

